What is claimed

1. A solid electrolytic capacitor comprising an anode formed of at least one metal selected from tantalum, niobium, titanium and tungsten, and a dielectric layer, an electrolytic layer and a cathode disposed on the anode, wherein the cathode comprises a mixed layer containing a first material consisting of silver particles having an average particle diameter (median diameter) of not less than 2 μm, a second material consisting of conducting carbon particles and/or silver particles having an average particle diameter (median diameter) of 1 μm or less and a binding agent.

2. The solid electrolytic capacitor as claimed in Claim 1, wherein the cathode comprises a carbon layer formed between the electrolytic layer and the mixed layer.

3. The solid electrolytic capacitor as claimed in Claim 1, wherein an amount of the second material based on a total amount of the first material and the second material is set in a range of 0.5 to 40 wt%.

4. The solid electrolytic capacitor as claimed in Claim 3, wherein the amount of the second material based on the total amount of the first material and the second material is set in a range of 3 to 40 wt%.

5. The solid electrolytic capacitor as claimed in Claim 1, wherein the silver particles having the average particle

diameter (median diameter) of 1 μm or less are reduced from silver oxide particles having the average particle diameter (median diameter) of 1 μm or less.

6. The solid electrolytic capacitor as claimed in Claim 1, wherein the binding agent is at least one resin selected from polyimide resin, epoxy resin and polyester resin.

7. The solid electrolytic capacitor as claimed in Claim 1, wherein the conducting carbon particles are carbon black and/or graphite.

8. A fabrication method for solid electrolytic capacitor of Claim 1 comprising a step of forming the mixed layer containing the silver particles having the average particle diameter (median diameter) of 1 μm or less wherein the silver oxide particles having the average particle diameter (median diameter) of 1 μm or less contained in the mixed layer are reduced.

9. The fabrication method for solid electrolytic capacitor as claimed in Claim 8, wherein the silver oxide particles are reduced by heat-treatment at not less than 160°C.

10. A solid electrolytic capacitor comprising an anode formed of at least one metal selected from tantalum, niobium, titanium and tungsten, and a dielectric layer, an electrolytic layer and a cathode disposed on the anode, wherein the cathode comprises a mixed layer containing a

first material consisting of scale-shaped silver particles having a median in a maximum length of not less than 2 μm and a second material consisting of conducting carbon particles and/or silver particles having an average particle diameter (median diameter) of 1 μm or less and a binding agent.

11. The solid electrolytic capacitor as claimed in Claim 10, wherein the cathode comprises a carbon layer formed between the electrolytic layer and the mixed layer.

12. The solid electrolytic capacitor as claimed in Claim 10, wherein a ratio of a maximum length L to a thickness d (L/d) of the scale-shaped silver particles is set in a range of 4 to 100.

13. The solid electrolytic capacitor as claimed in Claim 10, wherein an amount of the second material based on a total amount of the first material and the second material is set in a range of 0.5 to 40 wt%.

14. The solid electrolytic capacitor as claimed in Claim 13, wherein the amount of the second material based on the total amount of the first material and the second material is set in a range of 3 to 40 wt%.

15. A solid electrolytic capacitor comprising an anode formed of at least one metal selected from tantalum, niobium, titanium and tungsten, and a dielectric layer, an electrolytic layer and a cathode disposed on the anode,

wherein the cathode comprises a mixed layer containing a first material consisting of silver particles having an average particle diameter (median diameter) of not less than 2 μm, a second material consisting of conducting carbon particles and/or scale-shaped silver particles having a median in a maximum length of 1 μm or less and a binding agent.

16. The solid electrolytic capacitor as claimed in Claim 15, wherein the cathode comprises a carbon layer formed between the electrolytic layer and the mixed layer.

17. The solid electrolytic capacitor as claimed in Claim 15, wherein a ratio of a maximum length L to a thickness d (L/d) of the scale-shaped silver particles is set in a range of 4 to 100.

18. The solid electrolytic capacitor as claimed in Claim 15, wherein an amount of the second material based on a total amount of the first material and the second material is set in a range of 0.5 to 40 wt%.

19. The solid electrolytic capacitor as claimed in Claim 18, wherein the amount of the second material based on the total amount of the first material and the second material is set in a range of 3 to 40 wt%.

20. A solid electrolytic capacitor comprising an anode formed of at least one metal selected from tantalum, niobium, titanium and tungsten, and a dielectric layer, an

electrolytic layer and a cathode disposed on the anode, wherein the cathode comprises a mixed layer containing a first material consisting of scale-shaped silver particles having a median in a maximum length of not less than 2 μm, a second material consisting of conducting carbon particles and/or scale-shaped silver particles having a median in a maximum length of 1 μm or less and a binding agent.

21. The solid electrolytic capacitor as claimed in Claim 20, wherein the cathode comprises a carbon layer formed between the electrolytic layer and the mixed layer.

22. The solid electrolytic capacitor as claimed in Claim 20, wherein a ratio of a maximum length L to a thickness d (L/d) of the scale-shaped silver particles is set in a range of 4 to 100.

23. The solid electrolytic capacitor as claimed in Claim 20, wherein an amount of the second material based on a total amount of the first material and the second material is set in a range of 0.5 to 40 wt%.

24. The solid electrolytic capacitor as claimed in Claim 23, wherein the amount of the second material based on the total amount of the first material and the second material is set in a range of 3 to 40 wt%.